BRIEF PAPER

German Agri-Food Systems Think & Do Tank (GAST)

Connecting existing capacities for resilience, competitiveness and agri-food and nutrition security



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Core-partners

Universität Hohenheim

Thünen

Bornimer Agrartechnische Berichte

Heft 114
Potsdam 2026

Abstract

Germany has substantial agri-food research and innovation capabilities, but connections between evidence, decision-making and implementation across disciplines, sectors, governance levels and regions remain uneven. The German Agri-Food Systems Think & Do Tank (GAST), as an independent, cross-institutional initiative, aims at connecting existing efforts and capacities to advance resilience, competitiveness and agri-food and nutrition security in Germany. It brings together research, policy, business, practice and civil society to build a shared understanding of the agri-food system, assess future pathways and support joint action, while respecting participating institutions' mandates and responsibilities. Think and Do combine joint priority-setting, foresight, evidence synthesis and systems assessment with validation, demonstration and implementation through existing organizations. Participation is shaped by each topic, with particular attention to affected interest groups and perspectives missing from existing discussions. The joint work supports independent science-based advice and collective evidence-based advocacy. This paper sets out GAST's purpose, collaborative approach and plans for an initial demonstration program in 2027.

Keywords: agri-food systems, research and innovation, coordination, resilience, competitiveness, agri-food and nutrition security, Germany

Why Germany needs stronger connections between research and action

Agri-food systems encompass the interconnected stakeholders, institutions, activities and resources that shape how food and agricultural products are produced, processed, distributed, consumed, and reused or disposed of, together with the resulting outcomes for human health, society, the economy and the environment (FAO, 2025). This definition captures the system's core food-related activities, but its boundaries extend beyond sectors explicitly labeled as "nutrition" or "food". Understanding how to navigate systemic change toward a more resilient, competitive and healthy agri-food system also requires examining its connections with other sectors, such as health, energy and water management, and the pathways through which change can be achieved (FAO, 2025). Climate change, biodiversity loss, geopolitical disruption and volatile markets put pressure on production, livelihoods, public health and natural resources (Cuhls et al., 2026). These challenges must be considered alongside the need for affordable, healthy diets and economically viable farms and food businesses and resilient agri-food innovation ecosystems (The German Federal Government, 2024).

Germany has substantial scientific expertise in agri-food systems and established links between research, policy and practice, including the German Agricultural Research Alliance (DAFA), the German Agricultural Society (DLG), emerging Food System Research Hubs, Living Labs and European partnerships such as AGROECOLOGY, FutureFoodS, Agricultura of Data, European Partnership on Animal Health and Welfare, the EU Mission "A Soil Deal for Europe". Nevertheless, there is a need for stronger integration across sectors, institutions and governance levels, closer collaboration between programs and more effective use of research results for joint action (Wissenschaftsrat, 2023; 2024). At European level, assessments likewise highlight the need to overcome fragmented responsibilities, improve the comparability of information on investments and outcomes, and strengthen connections between research, policy and implementation (European Commission, 2023; Duncan, 2025). The Commission's AgRI 2040 and Food 2040 approach responds to this need by placing greater emphasis on users' needs, testing, deployment and uptake (European Commission, 2026).

To address the gap and catalyze systemic change, the German Agri-Food Systems Think & Do Tank (GAST) is an independent, cross-institutional initiative connecting existing efforts and capacities to support a more resilient, competitive and secure agri-food system in Germany. Its added value lies in joint assessment and follow-up: defining priorities with intended users, combining evidence and foresight, comparing findings across settings, and connecting them with validation and implementation through existing organizations. Practical experience will feed back into assessment, while participating organizations retain their mandates and responsibilities. Its initial program is intended to test where this work adds value and helps findings inform decisions across institutions and regions. GAST provides an umbrella for these complementary contributions, respecting their

distinct mandates and priorities without replacing or centralizing them. By bringing them into a wider picture, GAST will identify shared cross-cutting topics, assess pathways for systemic change and link assessment to implementation through partner organizations and meaningful collaborations.

GAST's Vision

GAST's vision is a resilient, competitive and secure agri-food system in Germany that ensures access to affordable, safe and healthy food for all, supports economically viable farms, agri-food businesses, local initiatives and innovation ecosystems, and protects the ecological foundations of agri-food production. Citizens and affected interest groups can influence decisions concerning their food and livelihoods, and the system accounts for the wider consequences of Germany's production, trade and resource use. GAST advances this vision through effective collaboration, exchange and resource mobilization across sectors, institutions, governance levels and regions, supporting systemic change and contributing to national, European and international debates and agendas as well as providing evidence to inform policy priorities and decisions that support this vision.

GAST's Mission

GAST's mission is to build a shared understanding of Germany's agri-food system and its future pathways, and broad support for joint action toward greater resilience, competitiveness and agri-food and nutrition security. As an independent, cross-institutional initiative, GAST connects existing efforts and capacities across research, policy, business, practice and civil society with effective participation by relevant stakeholders, especially affected interest groups in the agri-food system. GAST supports collaboration to assess future pathways, co-create systemic solutions and develop joint activities, linking evidence and systems assessment with validation and implementation to turn shared priorities into collective action. Through recurring dialogue forums and events, GAST contributes to regional, national, European and international debates and agendas, providing independent science-based advice and collective evidence-based advocacy.

How *Think* and *Do* work together

The *Think* and *Do* functions bring scientific evidence together with knowledge and experience from policy, business, practice and civil society to support systemic change in line with GAST's vision and mission. The *Think* function brings together stakeholder expertise, research findings, data and foresight to jointly examine selected priority topics, assess uncertainty and co-create options with decision-makers, enterprises, practitioners and other target groups. The *Do* function connects this assessment with validation, demonstration and implementation through existing research facilities, Living Labs, practice networks, businesses, public institutions and regional initiatives. Together, the two functions help reframe problems, identify shared cross-cutting priorities, test assumptions, refine questions and definitions, reveal constraints and co-create pathways for collective action, with practical experience feeding back into assessment.

GAST develops an open forum in which participants identify needs, frame shared cross-cutting priorities and questions, and discuss findings across research, policy, business, practice and civil society. Participation is shaped by the topic and is open to relevant research and applied-science organizations, public authorities, farmers and advisers, food businesses, public buyers, consumers, civil society and participants in European partnerships. GAST actively seeks perspectives, knowledge and capacities that are missing, including those of people affected by the issues under discussion. Continuing dialogue and focused meetings help participants develop priorities and reflect on findings. The exchange connects national, regional and local priorities with European strategic agendas such as AgRI 2040 and Food 2040, and initiatives, including FutureFoodS, AGROECOLOGY, Agriculture of Data, the European Partnership on Animal Health and Welfare, and Mission Soil.

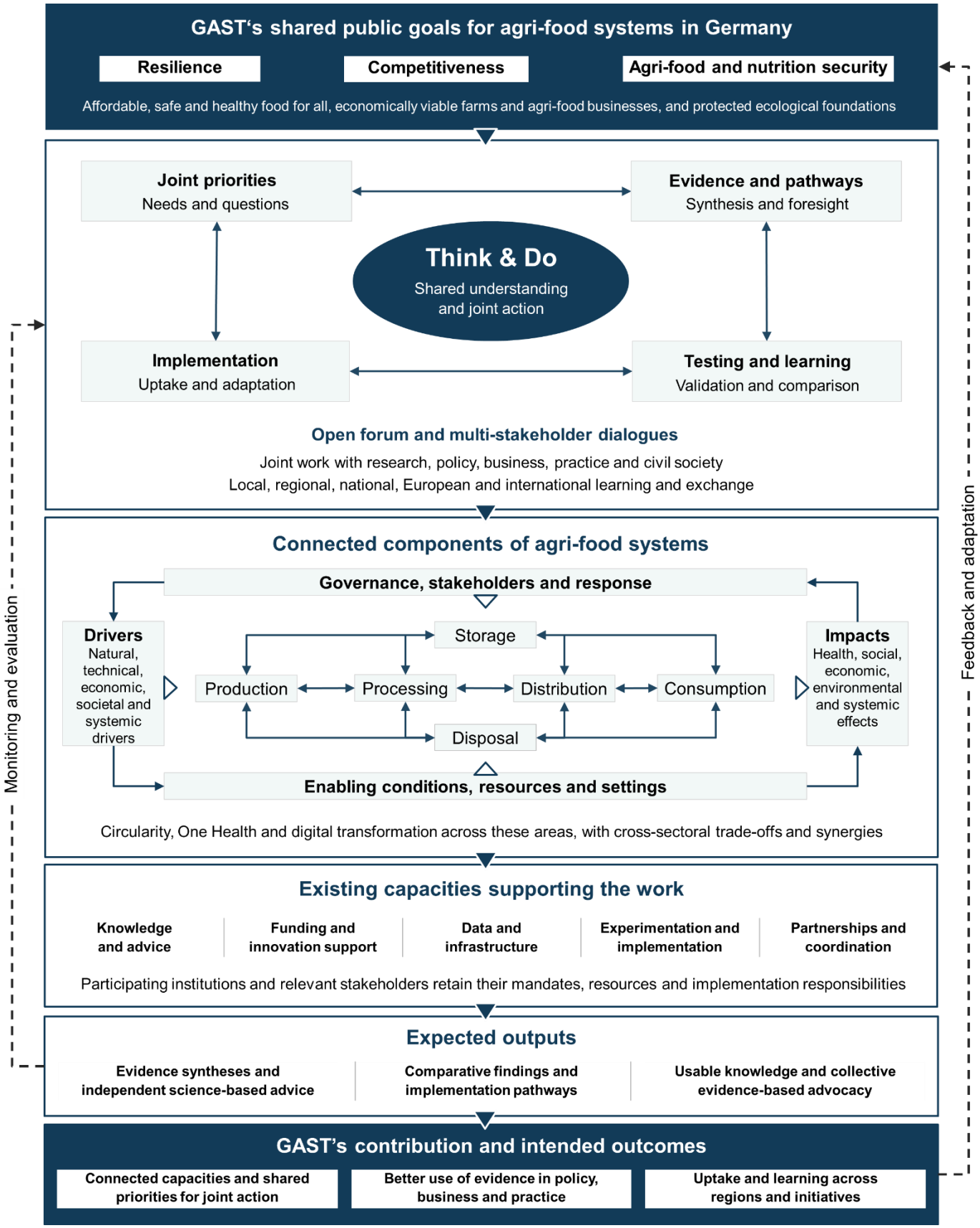


Figure 1. Compass for the German Agri-Food Systems Think & Do Tank (GAST) for demo year 2027

The starting point for demo year 2027

The preliminary priority topics outlined below address selected questions across Germany's agri-food system and provide an initial basis for discussion. Selection will consider public relevance and multi-stakeholder perspectives, the need to connect existing capacities, available evidence, intended users and feasibility. Their final selection and scope will be agreed collaboratively by participating partners taking into account where GAST can address shared needs, foster collaboration across existing initiatives and generate added value beyond ongoing activities.

Candidate priority topic	Contribution and intended use
Foresight, system preparedness and pathways for resilient agri-food systems in Germany	Assess emerging risks, dependencies and future options by combining foresight with scientific evidence and practical experience. Findings could help identify research needs and inform preparedness, policy and investment decisions, considering trade-offs among resilience, competitiveness, and agri-food and nutrition security.
Shared understanding of agri-food systems: definition, mapping Germany's agri-food system, and multi-stakeholder engagement for Think & Do	Develop a shared working definition and map system components, interdependencies, existing initiatives and capacities. Identify relevant stakeholders and missing perspectives to support joint problem definition and practical collaboration. Refine the shared understanding through continuing engagement and experience from testing and implementation.
From research and innovation to implementation: scaling and deployment for a competitive agri-food system in Germany	Examine barriers to uptake and the conditions for using and scaling technical, organizational, behavioral and policy changes. Connect assessment with existing validation and implementation settings, inform practical next steps by responsible organizations, and feed implementation experience back into research.

Delivering the demo 2027 program requires support for synthesis, foresight, mapping, coordination and evaluation, alongside resources for agreed joint tasks and for maintaining evidence, methods and working relationships between activities. Public authorities, program owners and implementation partners can help frame shared priorities and clarify how findings can inform policy, funding, procurement, investment or practice. Each activity or task needs a responsible lead and an agreed process for considering findings and documenting their subsequent use. Research organizations, businesses and regional partners may contribute evidence, expertise and practical settings for this work, supported by compatible data and evaluation methods that enable comparison and learning while respecting local conditions, data rights and participants' time.

Coordination and engagement

GAST is administratively supported by its host institutions, while retaining independence in its analytical work, agenda-setting, science-based advice and collective evidence-based advocacy. The hosts provide an organizational basis for coordinating and carrying out the agreed work. The 2027 program is being prepared with the Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) and the Hans Eisenmann-Forum for Agricultural Sciences at the Technical University of Munich (HEF@TUM) as joint administrative hosts. The University of Hohenheim and the Johann Heinrich von Thünen Institute are additional core partners.

The core partners will approve the annual work and resource plan. A delegated steering group will be formed to oversee delivery, supported by an analytical and coordination team. Institutions retain authority over their funds and contracts. Participation does not imply institutional endorsement of collective advocacy positions. Scientific independence, disclosed interests and transparent methods will guide the work; funding and membership will not confer a veto over scientific conclusions. Data access, confidentiality and publication arrangements will be agreed for each task. An independent review is planned at the end of the demonstration phase to assess analytical quality, documented use of findings, additional value, participation burden and funding viability.

GAST invites public authorities, research organizations and partners from business, practice and civil society to join GAST, propose topics for the 2027 program and contribute expertise, evidence or practical settings to agreed work. Inquiries can be directed to GAST speaker, Barbara Sturm and coordinator of GAST, Naser Reyhani (nreyhani@atb-potsdam.de).

The full GAST position paper is published in Bornimer Agrartechnische Berichte, Volume 113 (Sturm, B., Reyhani, N., et al. 2026).

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Imprint

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November 2026

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Cover pictures designed/captured by Naser Reyhani (copy-right use)

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To cite

Sturm, B., Reyhani, N., et al. (2026). German Agri-Food Systems Think & Do Tank (GAST): Connecting existing capacities for resilience, competitiveness and agri-food and nutrition security [Brief paper]. Bornimer Agrartechnische Berichte, Vol. 114. Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Potsdam.

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Publisher

Published by the Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), which is supported of the Federal Ministry of Agriculture, Food and Regional Identity (BMLEH) as well as of the Ministry of Science, Research and Culture of the State Brandenburg (MWFK).

Contents do not necessarily reflect the publisher or editors views in this area.

ISSN 0947-7314 Volume 114

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German Agri-Food Systems Think & Do Tank (GAST)

Bornimer Agrartechnische Berichte
ISSN 0947-7314 | Volume 114